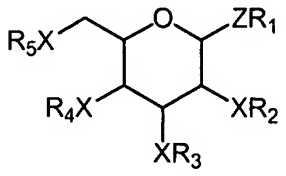
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-42. (Cancelled).

43. (Previously Presented) A method of identifying a candidate therapeutic agent comprising:

i) contacting a membrane comprising a G-Protein Coupled Receptor (GPCR) with a compound of general formula 1, or a pharmaceutically acceptable salt thereof



General Formula I

wherein the ring may be of any configuration;

Z is selected from the group consisting of: sulphur, oxygen, and NR^A wherein R^A is selected from the set defined for R_1 to R_5 or Cl to Cl5 acyl, C4 to C15 arylacyl or C4 to C15 heteroarylacyl, with the proviso that both R_1 and R^A are not hydrogen,

X is selected from the group consisting of: oxygen and NR^A providing that: i) X of XR_2 is NR^A, ii) X of XR_3 is oxygen and R_3 is not hydrogen, iii) X of R_4 is oxygen or NR^A, and X of XR_5 is oxygen, wherein at least one of OR_4 and OR_5 is OH,

R_1 to R_5 are independently selected from the group consisting of: H, Cl to C12 alkyl, Cl to C12 alkenyl, C1 to C12 alkynyl, Cl to C12 heteroalkyl, C4 to C15 aryl, C4 to C15 heteroaryl, C4 to C15 arylalkyl and C4 to C15 heteroarylalkyl substituent,

wherein, when X is NR^A, both R^A and the corresponding R_2 or R_4 is not hydrogen, and

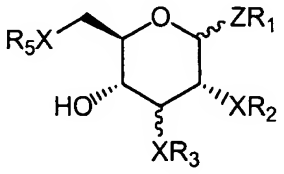
ii) determining whether said compound inhibits or effects signal transduction activity of said GPCR,

wherein a compound that inhibits or effects said activity of said GPCR is a candidate therapeutic agent.

44. (Currently Amended) The method of claim 43, wherein any one of R^A or R_1 to R_5 is substituted with a moiety selected from the group consisting of: -OH, -NO, $-NO_2$, $-NH_2$, $-N_3$, -F, -Cl, -Br, -I ~~halogen~~, $-CF_3$, $-CHF_2$, $-CH_2F$, -C≡N, ~~alkoxy, aryloxy~~ -OR, $-C(=NH)NH_2$, -NH-C(=NH)-NH_2, -COOH, -COOR, -C(=O)NHR, ~~aryl, cycloalkyl, heteroalkyl, heteroaryl, aminoalkyl, aminodialkyl, aminotrialkyl, aminoacyl, carbonyl, substituted or unsubstituted imine~~ -NHR, -NRR, -NRRR , -NR(C=O)R , =O, $-SO_3H$, $-OSO_2NH_2$, $-OPO_3H$, $-OPO_2NH_2$, $-NH-NH_2$, ~~NR-OR~~ NH-OR, -NH-OH, ~~heteroaryloxy, aminoaryl, aminoheteroaryl, thioalkyl, thioaryl and~~

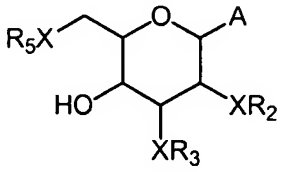
~~thioheteroaryl~~ -SR; wherein the group R is selected from the group consisting of: H, acyl, alkyl, alkenyl, alkynyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl such that the total number of carbon atoms in each of R^A, R_1, R_2, R_3, R_4 and R_5 does not exceed C1 to C15 acyl, C1 to C12 alkyl, C1 to C12 alkenyl, C1 to C12 alkynyl, C1 to C12 heteroalkyl, C4 to C15 aryl, C4 to C15 heteroaryl, C4 to C15 arylalkyl or C4 to C15 heteroarylalkyl substituent.

45. (Previously Presented) The method of claim 43, wherein the compound is



General Formula II.

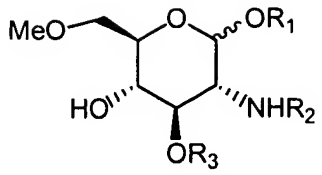
46. (Previously Presented) The method of claim 43, wherein the compound is



General Formula III

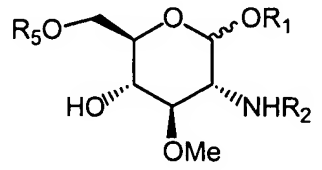
wherein A is selected from the group consisting of: $N(R^A)R_1$, SR_1, or OR_1.

47. (Previously Presented) The method of claim 43, wherein the compound is



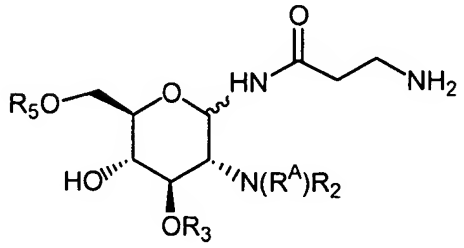
General Formula IV.

48. (Previously Presented) The method of claim 43, wherein the compound is



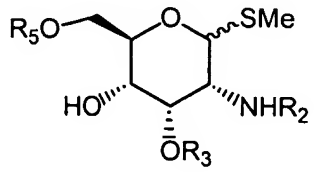
General Formula V.

49. (Previously Presented) The method of claim 43, wherein the compound is



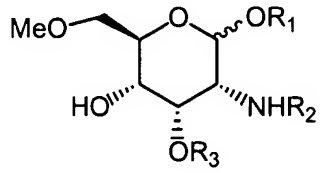
General Formula VI.

50. (Previously Presented) The method of claim 43, wherein the compound is



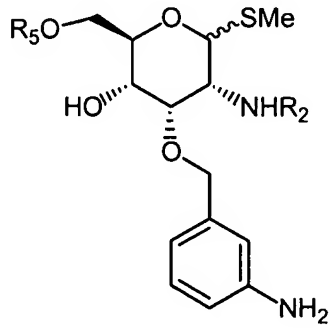
General Formula VII.

51. (Previously Presented) The method of claim 43, wherein the compound is



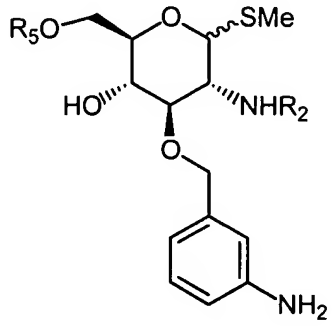
General Formula VIII.

52. (Previously Presented) The method of claim 43, wherein the compound is



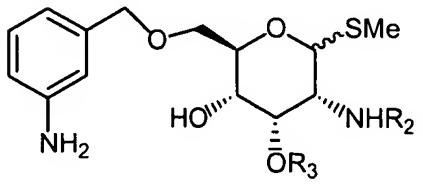
General Formula IX.

53. (Previously Presented) The method of claim 43, wherein the compound is



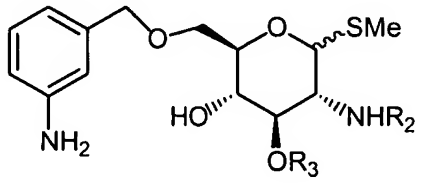
General Formula X.

54. (Previously Presented) The method of claim 43, wherein the compound is



General Formula XI.

55. (Previously Presented) The method of claim 43, wherein the compound is



General Formula XII.

56. (Previously Presented) The method of claim 43, wherein the receptor is a somatostatin receptor.

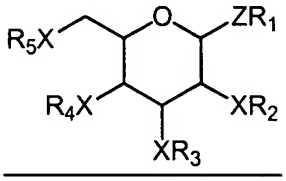
57. (Previously Presented) The method of claim 43, wherein the receptor is a melanocortin receptor.

58. (Previously Presented) The method of claim 43, wherein said membrane is *in vitro*.

59. (Previously Presented) The method of claim 43 wherein said membrane is *ex vivo.*

60. (Currently Amended) [[The]] A method of identifying ~~according to claim 43 wherein said candidate therapeutic agent is~~ a candidate anti-inflammatory agent comprising:

i) contacting a membrane comprising a G-Protein Coupled Receptor (GPCR) with a compound of general formula 1, or a pharmaceutically acceptable salt thereof



General Formula I

wherein the ring may be of any configuration;

Z is selected from the group consisting of: sulphur, oxygen, and NR^A wherein R^A is selected from the set defined for R_1 to R_5 or Cl to Cl5 acyl, C4 to C15 arylacyl or C4 to C15 heteroarylacyl, with the proviso that both R_1 and R^A are not hydrogen,

X is selected from the group consisting of: oxygen and NR^A providing that: i) X of XR_2 is NR^A, ii) X of XR_3 is oxygen and R_3 is not hydrogen, iii) X of R_4 is oxygen or NR^A, and X of XR_5 is oxygen, wherein at least one of OR_4 and OR_5 is OH,

R_1 to R_5 are independently selected from the group consisting of: H, Cl to C12 alkyl, Cl to C12 alkenyl, C1 to C12 alkynyl, Cl to C12 heteroalkyl, C4 to C15 aryl, C4 to C15 heteroaryl, C4 to C15 arylalkyl and C4 to C15 heteroarylalkyl substituent,

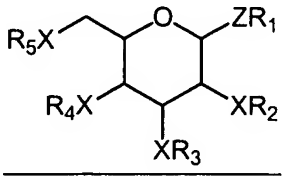
wherein, when X is NR^A, both R^A and the corresponding R_2 or R_4 is not hydrogen, and

ii) determining whether said compound inhibits or effects signal transduction activity of said GPCR,

wherein a compound that inhibits or effects said activity of said GPCR is a candidate anti-inflammatory agent.

61. (Currently Amended) [[The]] A method ~~according to claim 43 wherein a compound that inhibits or effects said activity of said GPCR is~~ of identifying a candidate therapeutic agent for ~~use in~~ treating pain, cancer, metabolic or gastrointestinal disorders, cardiovascular disorders, central nervous system disorders, obesity or erectile dysfunction comprising:

i) contacting a membrane comprising a G-Protein Coupled Receptor (GPCR) with a compound of general formula 1, or a pharmaceutically acceptable salt thereof



General Formula I

wherein the ring may be of any configuration;

Z is selected from the group consisting of: sulphur, oxygen, and NR^A wherein R^A is selected from the set defined for R_1 to R_5 or Cl to Cl5 acyl, C4 to C15 arylacyl or C4 to C15 heteroarylacyl, with the proviso that both R_1 and R^A are not hydrogen,

X is selected from the group consisting of: oxygen and NR^A providing that: i) X of XR_2 is NR^A, ii) X of XR_3 is oxygen and R_3 is not hydrogen, iii) X of R_4 is oxygen or NR^A, and X of XR_5 is oxygen, wherein at least one of OR_4 and OR_5 is OH,

R_1 to R_5 are independently selected from the group consisting of: H, Cl to C12 alkyl, Cl to C12 alkenyl, C1 to C12 alkynyl, Cl to C12 heteroalkyl, C4 to C15 aryl, C4 to C15 heteroaryl, C4 to C15 arylalkyl and C4 to C15 heteroarylalkyl substituent,

wherein, when X is NR^A, both R^A and the corresponding R_2 or R_4 is not hydrogen, and

ii) determining whether said compound inhibits or effects signal transduction activity of said GPCR,

wherein a compound that inhibits or effects said activity of said GPCR is a candidate therapeutic agent for treating pain, cancer, metabolic or gastrointestinal disorders, cardiovascular disorders, central nervous system disorders, obesity or erectile dysfunction.